|  |
| --- |
| **Lesson Title:** Oreo Moon Phases |
| **Subject area / course / grade level:** 6th grade Science |
| **Introduction:** This lesson is used after introducing the phases of the moon and how they are created. Students will be using the cream of cookies to create models of the phases.  Each pair/group will make a model of the 8 main phases of the moon with cream filled cookie. |
| **Lesson Length:** About 30 minutes |
| **Materials:** textbook, whiteboard and supplies, paper plates, plastic utensils (forks work fine), cookies with crème in the middle (Oreos for example. I use the generic version of Oreos to make sure we have enough and keep expenses down.) |
| **Lesson Overview:** Students will work in groups to create models of the moon phases with cookies. |
| **Tennessee Standards:** SPI 0607.6.4 – Explain the different phases of the moon using a model of the earth, moon, and sun. |
| **Lesson objective(s):** To better know the phases of the moon by creating a model of the various phases. |
| **ENGAGEMENT**   * I use this lesson after we have been introduced to the phases of the moon. We have already covered how the phases come about and the position of the Earth, sun, and moon during each of the phases. I do a quick review with questions and illustrations on the whiteboard over moon phases, eclipses, and such. Then I tell them we will be making models of the phases. * Students should be focusing on how the moon has phases and in what order they would appear. |
| **EXPLORATION**   * Students will be issued a plate (or 2 / napkins or paper towels will also work fine), plastic utensil, and enough cookies to make a full set (I gave out 8 to each pair, but you could manage with less) They are to create a model of each major phase of the moon by molding the crème of the cookie into the proper shape for that specific phase. After making their 8 models, they have to verbally identify them and explain what happens for the moon to appear that way. |
| **EXPLANATION**   * Students need to be able to explain why the phases appear as they do and place them in the proper order (any order you have taught is fine; I tend to start with *new moon*) * Ask questions like how can we tell the difference between crescent and gibbous? Why is one side waxing and one side waning? Does it matter where the intermediate phases are? |
| **ELABORATION**   * Students will reinforce the concept of moon phases through the creation of a model. It could be extended to include the Earth and sun as well for those who may need to see the full placement of objects. Groups could also be given a report or topic specific to moon phases to present along with their cookie model. * vocabulary: *moon, moon phases, new moon, full moon, first quarter moon, last quarter moon, waxing, waning, crescent, gibbous, rotation, revolution.* * Daily application is evident in the moonlight and what we seen in the sky at night. It is also applied to media regarding space missions, special lunar/solar events, etc. |
| **EVALUATION**   * Students should be able to answer most questions asked to them since this is not an introduction lesson. They should be able to tell information about how the moon gets to those phases, why we see them, what part the sun plays in the process, how long the cycle takes, etc. Students unable to make these connections will need remediation. |